

**Remarks**

Claims 1-20 and 25-37 were pending in this application. By this amendment, claims 1, 7-20, 26, 34, and 37 are canceled. Claims 27-33, 35, and 36 have been withdrawn from consideration. Claims 2-4, 6, 25, 27, 33, 35, and 36 are amended herein. New claims 77-89 are added herein.

Claims 2 and 3 are amended to place them in independent form. In addition, claims 2-4, and 6 (and withdrawn claims 33 and 36) are amended to be directed to the elected sequence (SEQ ID NO: 11). Claims 6 and 25 (and withdrawn claims 27 and 35) are amended to correct dependency. Support for new claims 77-80 can be found in the specification at least at page 35, lines 24-27. Support for new claims 81-89 can be found in the specification at least at page 79, line 18 through page 80, line 30.

Applicants believe that no new matter has been added by these amendments. Applicants reserve the right to pursue the deleted and canceled subject matter in a related application. After entry of this amendment, claims 2-6, 25, 27-33, 35, 36, and 77-89 are pending. Reconsideration of the pending claims is respectfully requested.

*Restriction Requirement*

Applicants acknowledge that the elections of Group I (claims 1-7 and 25, in part; directed to a polypeptide, antigenic fragment, and pharmaceutical composition) and SEQ ID NO: 11 are made final. The claims of Groups II-IV (claims 8-20 and 26-37) are withdrawn or canceled.

*Information Disclosure Statement (IDS)*

Applicants thank the Examiner for reviewing and initialing the Information Disclosure Statements submitted on March 11, 2005, June 29, 2005, January 9, 2006, May 11, 2006, and September 5, 2007 (received by the United States Patent and Trademark Office on March 11, 2005, July 1, 2005, January 11, 2006, May 15, 2006, and September 7, 2007).

### *Claim Objection*

Claim 3 is objected to for being dependent upon a rejected base claim. Solely to advance prosecution in this case, claim 3 is amended herein to be in independent form. Applicants submit that claim 3, and claims 4, 5, and 81-89 that depend therefrom, are now in condition for allowance, which action is respectfully requested.

### *Claim Rejections Under 35 U.S.C. §112, first paragraph (written description)*

Claims 1, 2, 5-7, and 25 are rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor had possession of the invention at the time the application was filed. Applicants traverse this rejection.

Solely to advance prosecution in this case, claims 1 and 7 are canceled, rendering the rejection of these claims moot. Applicants' arguments throughout this Response are based on the claims as amended.

As established in *Ex parte Parks*, “adequate description under the first paragraph of 35 U.S.C. 112 does not require literal support for the claimed invention. . . . Rather, it is sufficient if the originally-filed disclosure would have conveyed to one having ordinary skill in the art that an appellant had possession of the concept of what is claimed” *Ex parte Parks*, 30 USPQ2d 1234, 1236-37 (B.P.A.I. 1993) (emphasis added). Moreover, the MPEP at §2163 states that “[w]hat is conventional or well known to one of skill in the art need not be disclosed in detail. See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d at 1384,231 USPQ at 94. If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met. See, e.g. *Vas-Cath*, 935 F.2d at 1563, 19 USPQ2d at 1116; *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972) (stating “description need not be in *ipsis verbis* [i.e., “in the same words”] to be sufficient”).”

In the current instance, the original disclosure clearly conveys that Applicants had possession of the claimed invention, and certainly of the concept of what is currently claimed.

Applicants had possession of the peptide sequence set forth in SEQ ID NO: 11. Applicants had also contemplated and provided explicit written description of polypeptides comprising at least 95% sequence identity to SEQ ID NO: 11 (specification, for example, at page 22, lines 21-23; page 35, lines 24-27), conservative variants of SEQ ID NO: 11 (for example, at page 10, line 26 through page 11, line 29), and immunogenic fragments comprising at least fifteen consecutive amino acids of SEQ ID NO: 11 (for example, at page 36, lines 5-7).

The Office action alleges that in order to “adequately describe the genus of the amino acid of SEQ ID NO: 11, applicant must also give a functional limitation of amino acid SEQ ID NO: 11” (Office action at page 5). Applicants respectfully submit that the claims, in fact, require that the polypeptide produce an immune response to *P. ariasi* in a subject. Thus, the claims do include a functional limitation.

Applicants also note that alignment methods are provided for identifying the claimed variants of SEQ ID NO: 11 (for example, at page 21, line 21 through page 22, line 31) and the specification describes that the claimed polypeptides can be purified and sequenced using standard techniques (for example, at page 20, lines 4-8, page 36, line 24 through page 37, line 3). Methods are also provided for identifying sequence variants having the claimed activity (for example, at page 13, line 26 through page 14, line 1; page 79, line 18 through page 100, line 19). Thus, the specification provides sufficient written description to convey to one of skill in the art that the inventors had possession of the claimed polypeptides at the time the application was filed.

The Office is reminded that the description of a representative number of species does not require the description to be of such specificity that it would provide individual support for each species that the genus embraces. Guidelines for Examination of Patent Applications under the 35 U.S.C. § 112, ¶ 1, “Written Description” Requirement 66 Fed. Reg. 1099, 1106 (2001). Satisfactory disclosure of a “representative number” depends on whether one of skill in the art would recognize that Applicants were in possession of the necessary common attributes or features of the elements possessed by the members of the genus in view of the species disclosed. *Id.* Applicants submit that the knowledge and level of skill in the art would allow a person of

ordinary skill to envision the claimed sequences based on the teachings of the specification, the provision of SEQ ID NO: 11 itself, and its activity (producing an immune response to *P. ariasi* in a subject). As claims 2, 5, 6, and 25 are sufficiently described by the specification, Applicants request that the rejection under 35 U.S.C. §112, first paragraph, be withdrawn.

*Claim Rejections Under 35 U.S.C. §102(b)*

Claim 1 is rejected as allegedly anticipated under 35 U.S.C. §102(b) by Jacobs *et al.* (WO9920644; published April 29, 1999). Applicants respectfully traverse this rejection. However, solely to advance prosecution in this case, claim 1 is canceled herein, rendering the rejection of claim 1 moot.

*Request for Examiner Interview*

Applicants believe the application is in condition for allowance and such action is requested. Examiner Archie is formally requested to contact the undersigned prior to issuance of an allowance in order to arrange a telephonic interview to discuss rejoinder of withdrawn claims. If an additional rejection is asserted, or if the present rejection is maintained, Examiner Archie is also formally requested to contact the undersigned in order to arrange a telephonic interview prior to issuance of the next Office action. It is believed that a brief discussion of the merits of the present application may expedite prosecution. This request is being submitted under MPEP §713.01, which indicates that an interview can be arranged in advance by a written request.

### Conclusion

Based on the foregoing amendments and arguments, the claims are in condition for allowance and notification to this effect is requested. If for any reason the Examiner believes that a telephone conference would expedite allowance of the claims, please telephone the undersigned at the number listed below.

Respectfully submitted,

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